(18) further to the head box (22) of the paper machine, and wherein the paper pulp is transferred into the gas separation tank (16) from a white water tank (100) located essentially at the machine level by means of a propeller pump (120) and the gas separation tank (16) is provided with means for regulating the inlet pressure of the fan pump (18) without overflow and the surface level height difference between the white water tank (100) and the gas separation tank (16) is no more than 9 meters.

See 4,378,978 Fig 3

REMARKS

Entry of the amendment instructions above and favorable reconsideration and allowance of this application are requested.

By way of the amendment instructions above, claim 1 has been further revised so as to emphasize certain features of the present invention which patentably distinguish the same. In this regard, the amended version of claim 1 above is based on original claims 1, 7, 15 and 17 and thus no issue of new matter has been presented thereby.

One principle object of the present invention is to reduce the power consumption of the paper machine short circulation, as described more fully on pages 4-5 of the originally filed specification.

Prior claim 1 attracted a rejection based on Kaiser in view of Sampi. The Examiner asserts in this regard that it would be obvious to substitute the low consistency pump of Sampi in the Kaiser system. However, the Kaiser system is system similar to the prior art system depicted in Figure 1 of the present application. That is, as shown therein, the white water tank and the gas separation tank feed pump are conventionally located at the bottom level of the plant. It wold therefore not have been obvious at all to use a propeller pump in the Kaiser system, because the propeller pump has not met the head requirements of such prior art processes, such as Kaiser. Applicant has modified the whole system – as defined in the amended version of claim

1 – so that the use of the propeller pump is also possible. In the paragraph bridging pages 5 and 6 of the present application, it is described that the white water tanks in the prior art systems are located at the bottom level. The system of applicant's claim 1 therefore is not obvious at all. For instance, the Kaiser patent is some eighteen (18) years older than the present invention, yet no-one has suggested the present claimed system earlier even thought propeller pumps per se are not new.

Sampi merely mentions that a pulp stock of low consistency can be pumped by means of centrifugal pumps or propeller pumps. However, Sampi does not relate to the short circulation process of a paper machine, but to mixing chemicals and washing water into pulp during bleaching and washing at a pulp mill. The Examiner argues that the present invention which uses a propeller pump in connection with the short circulation is obvious over Sampi. Again, applicant can discern no teaching in the art whereby a propeller pump could be used after the white water tank in a short circulation at a paper mill to thereby bring about the advantages described on page 6,lines 16-28 of the subject application.

IN order to clarify the claimed invention herein, there is attached a schematic drawing showing a short flow process according to the invention. In the drawing, it can be seen that the gas separation tank (without an overflow), white water tank (new, smaller version) and propeller pump are located at essentially the same machine level. Additionally, a cleaner plant (light version) can be used before the gas separation tank, if needed.[2]

The rejection of claim 1 based on Kaiser and Sampi, and the rejection of claims 2-5, 7 and 19 based on Kaiser and Sampi, in view of Vikio '304 or Makkonen are therefore inappropriate against the claims pending herein.

As to claim 6 which attracted a rejection based on Kaiser and Sampi in view of Meinander, applicant notes that Meinander's system differs essentially from the present

[2] Pending claim 6 notes that no special cleaning is used, but such is an optimum case that may not always be possible.

invention for at least the following reasons. In this regard, Meinander corresponds to FI 89728 which is described on page 2 of the present application. In column 5, lines 52-55, it is stated that the main fiber process is marked with a fat line passing through equipment number 10, 11, 12, 30 and 40. In column 6, it is described that in the mixer 12, tock is diluted to a consistency suitable for sorting in the centrifugal cleaner 30. Thus, Meinander treats the pulp in the cleaning means. There is no white water tank or gas separation tank in the Meinander system, but air is separated from white water in pumps 20 (column 6, lines 36-37). Meinander reference is therefore not relevant to the present invention since it does not even have the same elements (e.g., the white water tank is missing) as compared to the present invention. Withdrawal of the rejection advanced against claim 6 is therefore also in order.

An early and favorable reply on the merits is awaited.

Respectfully submitted,

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APPENDIX I

Marked-Up Version of Amended Claims Pursuant to 37 CFR §1.121(c)

1. (Twice Amended) A method of pretreating paper pulp, in which method paper pulp, either totally or at least the main part of it, is fed by means of a gas separation tank feed pump (12, 120) [from a white water tank (10)] into a gas separation tank (16) and from there by means of a fan pump (18) further to the head box (22) of the paper machine, and wherein the paper pulp is transferred [fed] into the gas separation tank (16) from a white water tank (100) located essentially at the machine level by means of a propeller pump (120) and the gas separation tank (16) is provided with means for regulating the inlet pressure of the fan pump (18) without overflow and the surface level height difference between the white water tank (100) and the gas separation tank (16) is no more than 9 meters.